AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A pair of primers ~~with forward primer~~consisting of a forward and a reverse primer wherein the forward primer consists of SEQ ID NO. 1 ~~having sequence of CCAAGCTTGCTGAACGCATCGG,~~ and the reverse primer consists of SEQ ID NO. 2 ~~having sequence of CCAAGCTTGCCACGCAGGATTATC~~.

2. (currently amended): A method for identifying *Artemisia annua* plants that contain at least 0.4 w/w/% artemisinin, comprising

obtaining DNA from said *Artemisia annua* plant

amplifying said DNA by polymerase chain reaction using the pair of primers of claim 1

identifying *Artemisia annua* plants containing at least 0.4 w/w/% artemisinin~~pair of primers as claimed in claim 1, wherein the primers help identify plants *Artemisia annua* containing high content of artemisinin~~.

3. (withdrawn-currently amended): A ~~screening~~ method for increasing the yield of artemisinin production in progeny *Artemisia annua* plants~~early identification of plants *Artemisle annua* having high content of artemisinin and thereby helping generation of plant population with further high content of artemisinin~~, said method comprising the steps of:

a. ~~isolating~~ obtaining DNA from *Artemisia annua* plants~~the plant~~,

b. amplifying said DNA by polymerase chain reaction using the pair of primers of claim 1~~running PCR on the isolated DNA using a pair of primers of SEQ ID Nos. 1 and 2~~,

c. identifying *Artemisia annua* plants containing at least 0.4 w/w/% artemisininidentifying plants having high content of artemisinin, containing nucleotide SEQ ID No. 3, and

d. crossing *Artemisia annua* plants containing at least 0.4 w/w/% artemisinin the identified plants to produce generate *Artemisia annua* progeny plants the next generation plants with containing a further higher content percentage of artemisinin than either *Artemisia annua* parent plant.

4. (withdrawn-currently amended): A screeningThe method as claimed inof claim 3, wherein said *Artemisia annua* plants containing at least 0.4 w/w/% artemisinin the plants can are be identified at nursery-stage itself.

5. (withdrawn): A screening method as claimed in claim 3, wherein the high content refers to
concentration of 0.4 w/w/% or more.

6. (withdrawn-currently amended): A screeningThe method of as claimed in claim 3, wherein *Artemisia annua* progeny plants containing the plant with higher content of artemisinin ranging between 0.5 to 1.4 w/w% are producedartemisinin are produced.

7. (withdrawn-currently amended): A screeningThe method as claimed inof claim 3, wherein the an increase in the artemisinin genetic advance (GA) is of about 0.4 w/w % occurs in firstwithin four years.

8. (withdrawn-currently amended): A screeningThe method as claimed inof claim 3, wherein the artemisinin content heritability (h) is about 80.

9. (withdrawn-currently amended): ~~A screening~~A method ~~as claimed in claim 3, wherein the method helps~~for maintaining ans elite genotypic population of *Artemisia annua* plants containing at least 0.4 w/w/% artemisinin, consisting essentially of the steps of claim 3.